

IN THE SPECIFICATION

Please replace the paragraph beginning at line 1, page 1 of the Specification with the following rewritten paragraph:

**CROSS REFERENCE TO RELATED APPLICATIONS**

This application claims the benefit of U.S. Provisional Applications Serial No. 60/220,790, filed July 25, 2000, Serial No. 60/223,644, filed August 8, 2000, Serial No. 60/224,080, filed August 8, 2000, and Serial No. 60/273,383, filed March 5, 2001. Further, the present invention is a continuation-in-part of co-pending U.S. Utility Applications Serial No. 09/488,339, entitled "Molecular Computer", filed January 20, 2000, now U.S. Patent No. 6,430,511 and which claims the benefit of U.S. Provisional Application Serial No. 60/116,714, filed January 21, 1999. Still, further, the present application is a continuation-in-part of co-pending U.S. Utility Application Serial No. 08/595,130, filed February 1, 1996, now U.S. Patent No. 6,320,200 which claims priority of U.S. Utility Application Serial No. 08/261,867, filed June 16, 1994, now abandoned, which in turn is a continuation-in-part of U.S. Utility Application 07/891,605, filed June 1, 1992, now abandoned. Yet further, the present application is a continuation-in-part of U.S. Patent Application Serial Number ~~09/551,716~~ 09/551,716, filed April 18, 2000, entitled "Molecular Scale Electronic Devices", now abandoned, which claims the benefit of U.S. Provisional Applications Serial No. 60/154,716, filed September 20, 1999 and Serial No. 60/157,149, filed September 30, 1999 and U.S. Utility Application 09/527,885, filed March 30, 2000. Each of the above-listed Applications is hereby incorporated herein by reference.

Please replace paragraph [0032] with the following rewritten paragraph:

[0032] Still referring to Figure 1, molecular circuit elements 14 preferably include conjugated molecular segments. The conjugated molecular segments are preferably substituted with groups at the termini that function as molecular alligator clips. Exemplary conjugated molecules that serve as conjugated molecular segments for molecular circuit elements, and exemplary conjugated molecules functionalized with molecular alligator clips are described in: Tour, J.M. "Molecular Electronics. Synthesis

and Testing of Components," Accounts of Chemical Research, volume 33, number 11, pages 791-804 (2000); Tour, J.M.; Kozaki, M.; and Seminario, J.M. "Molecular Scale Electronics: A Synthetic/Computational Approach to Digital Computing," J. Am. Chem. Soc. 120, 8486-8493 (1998); Dirk, S. M., et al. "Accoutrements of a molecular computer: switches, memory components and alligator clips," Tetrahedron 57, pp. 5109-5121 (2001), each hereby incorporated herein by refernece. Further, molecular circuit components 14 may include any of the molecules, conductive organic material, or conductive paths disclosed in U.S. Patent Application Serial Number ~~09/551,716~~ 09/551,716, filed April 18, 2000, now abandoned, entitled "Molecular Scale Electronic Devices", which is incorporated by reference herein.